

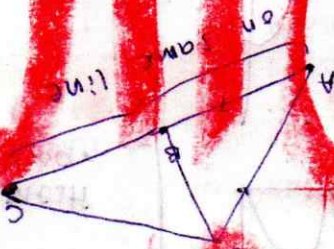
VECTOR :  $A(2, 5) / B(3, 6)$

$\therefore \vec{OA} = 2\hat{i} + 5\hat{j}$   
 $\therefore \vec{OB} = 3\hat{i} + 6\hat{j}$

$= \begin{pmatrix} 2 \\ 5 \end{pmatrix}$

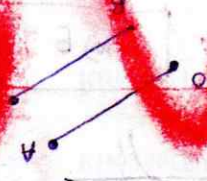
$\therefore \vec{OB} = \vec{OA} + \vec{AB}$   
 $\therefore \begin{pmatrix} 3 \\ 6 \end{pmatrix} = \begin{pmatrix} 2 \\ 5 \end{pmatrix} + \vec{AB}$

COLLINEAR :



$\therefore \frac{AB}{AC} = \frac{1}{2}$

PARALLEL :



$\therefore \vec{AB} = (2 + 5\hat{j}) - (2 + 5\hat{j}) = \vec{0}$   
 $\therefore \vec{BC} = (2 + 5\hat{j}) - (2 + 5\hat{j}) = \vec{0}$